

## REMARKS

Claims 1-32, originally pending in the application, are currently rejected. Claims 2, 9, 18, and 25 are here cancelled. Claims 1, 5, 7, 8, 10-17, 19-24, and 26-32 are amended and new claims 33-44 are added. Claims 1, 3-8, 10-17, 19-24, and 26-44 are now pending in the application. Favorable reconsideration and allowance of this application are respectfully requested in light of the following remarks.

### **I. Claim Rejections Under 35 U.S.C. §112**

Claims 1-32 are rejected under 35 USC 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

#### A. Claims 1 and 17

Claims 1 and 17 are rejected because, in the term Y SO<sub>x</sub>, neither the range for “x” nor the possible components of “Y” are identified. Amended claims 1 and 17 specify that “x” equals 3 or 4, and further identify the embraced scope of Y. Accordingly, withdrawal of the rejection is respectfully requested.

#### B. Claims 5, 8, 12, 14, 16, 21, 24, 28, 30, and 32

Claims 5, 8, 12, 14, 16, 21, 24, 28, 30, and 32 are rejected for containing trademark names used as limitations to identify or describe a particular material or product. These claims are amended in compliance with MPEP 608.01 (v) (“Language such as ‘the product X (a descriptive name) sold under the trademark Y’ is permissible”) to recite the selection of a claimed surfactant from the group of surfactants sold under various trademarks.

Withdrawal of the rejections are therefore respectfully requested.

#### C. Claims 7, 13, 15, 23, 29, and 31

Claims 7, 13, 15, 23, 29, and 31 are rejected for reciting the word “type” appended to otherwise definite terms, thus rendering the term indefinite. The word “type” is removed from these claims. Withdrawal of the rejection is therefore respectfully requested.

### **II. Other Amendments for the Purposes of Form and Clarity**

Claims 19-24 and 26-32 are amended to recite “An alkaline” as opposed to the previously-recited “A alkaline”.

Claims 10-12 are amended to depend from claim 1, as claim 9 is cancelled.

Claims 26-28 are likewise amended to depend from claim 17, as claim 25 is cancelled.

### **III. Claim Rejections Under 35 U.S.C. §102**

Claims 1, 2, 17, and 18 are rejected under 35 USC 102(b) as being anticipated by either Gillman or Yoshizawa.

In connection with Applicants' response to the rejections under 35 USC 112, Claims 2 and 18 are cancelled and claims 1 and 17 are amended to incorporate the limitations of claims 2 and 18.

Claims 1 and 17 are further amended to recite that the surfactant having the general formula  $Y SO_x^-$  is provided in an amount sufficient to reduce gassing and maintain performance relative to a cell lacking the surfactant. Support for these amendments is found in the specification at paragraphs 21-24. Applicant asserts that neither of the cited references teaches or suggests this claim limitation.

#### A. Gillman

In particular, Gillman relates generally to an electrode structure that incorporates a plasticizer and binder. Gillman further discloses that the plasticizer should be chosen to be compatible with the particular binder system in which it is to be co-joined (See Col. 3, lines 59-63). The plasticizer is further said to be hydrophilic and, in some instances, oleophilic. If the plasticizer is oleophilic, it may be desirable to incorporate a dispersant, wetting agent, or surfactant for miscibilization. (See Col. 4, lines 3-10).

One such dispersant includes petroleum sulfonates. However, it is clear from the disclosure that the sulfonate would be employed to disperse the plasticizer, and *not* to reduce gassing and maintain electrode performance. Accordingly, Gillman fails to teach or suggest adding the sulfonate surfactant in an amount sufficient to reduce gassing and maintain electrode performance compared to a cell without the surfactant.

#### B. Yoshizawa

Yoshizawa discloses an electrode having a surfactant additive of the general formula  $(x)-C_nF_{2n}-(y)-(CH_2CH_2O)_m-(Z)$ . (See Col. 5, lines 43). "F" and "Z" are both disclosed as being  $SO_3W$ . (Col. 6, lines 36-38). However, "Y" is disclosed as always being an ether group (Col. 5, line 45). As described above, claims 1 and 17 recite the possible components of Y embraced within the scope of the claims. None of the recited components include an

ether group. Moreover, Yoshizawa is devoid of any teaching or suggestion to replace the disclosed ether group with any of the groups identified in claims 1 and 17.

#### **C. Conclusion Regarding 102 Rejections**

None of the cited prior art references teach or suggest, either alone or in combination, a surfactant having the formula Y SO<sub>x</sub>- that is present in an amount sufficient to reduce gassing and maintain performance relative to an electrode or cell without the surfactant, whereby Y is selected from a number of groups that are not ethers. It is thus clear that independent claims 1 and 17 differ from the cited references both structurally and functionally.

Withdrawal of the rejections of claims 1 and 17 is therefore respectfully requested.

#### **IV. Additional Cancelled Claims**

Applicant has further cancelled claims 9 and 25 which recited subject matter now incorporated into corresponding independent claims 1 and 17.

#### **V. Allowable Subject Matter**

Applicant notes with appreciation that claims 3, 4, 6-16, 19, 20, and 22-32 contain allowable subject matter, and would be allowable if rewritten to overcome the rejections under 35 USC 112. Applicant asserts that the 112 rejections are overcome. Claims 9 and 25 are cancelled. Accordingly, formal allowance of claims 3, 4, 6-8, 10-16, 19, 20, 22-24, and 26-32 is respectfully requested.

#### **VI. Claims 5 and 21**

The Office Action notes that claims 5 and 21 recite only trademarks as specific surfactant types and, accordingly, the patentability of these claims cannot be determined. Applicant asserts that claims 5 and 21, as amended, satisfy 35 USC 112. Furthermore, Applicant asserts the patentability of corresponding independent claims 1 and 17 as a sufficient basis for the patentability of claims 5 and 21. Formal allowance of claims 5 and 21 is therefore respectfully requested.

#### **VII. New Claims**

Applicant adds new independent claim 33, and corresponding dependent claims 34-44. Claims 33-44 are method claims that correspond generally to apparatus claims 17, 19-24, and 26-32. In particular, claim 33 recites the step of providing a gelled anode comprising a



employed zinc powder, a gelling agent, an alkaline electrolyte, and a surfactant having the general formula  $Y SO_x^-$  in an amount sufficient to reduce gassing and maintain performance relative to a cell lacking the surfactant, wherein  $x$  is 3 or 4, and wherein  $Y$  is selected from the group consisting of an alkyl group, an aryl group, an alkylaryl group, a carboxy acid group, and a salt of any of the foregoing. As discussed above, this limitation is neither taught nor suggested in the prior art, either alone or in combination.

Formal allowance of claims 33-44 is respectfully requested.

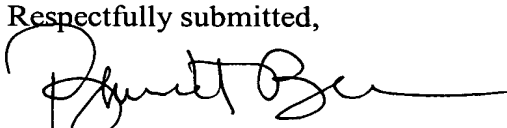
### VIII. Conclusion

Applicant therefore respectfully asserts that all rejections and objections cited by the Examiner have been overcome. Accordingly, the application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to deduct the \$340 fee including a \$144 fee for the addition of eight claims greater than twenty, a \$86 fee for the addition of one (1) independent claims greater than three, and a \$110 fee for a one-month extension of time, along with any other fees arising from this or any other communication, from deposit account No. 17-0055. Should any additional fee be due, please charge the fee to the same Deposit Account. Likewise, should any further extension of time be due, please consider this to be a petition for the appropriate extension of time and a request to charge the petition fee to the same Deposit Account. The Examiner is invited to contact the undersigned at the telephone number appearing below if such would advance the prosecution of this application.

Respectfully submitted,

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